920476-904914

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of	:	Christopher Tate
Serial No.	:	09/737,050
Filed	:	December 14, 2000
For	:	Communications System and Method Therefor
Examiner	:	James R. Sheleheda
Art Unit	:	2614
Customer number	:	23644

APPEAL BRIEF

Honorable Director of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This appeal is from the Examiner's final Office Action mailed March 13, 2006 in which all pending claims (namely Claims 1 to 7, 9 to 11, 13 to 15, 17 to 19, 21 to 23 & 25) were rejected. A timely Notice of Appeal was filed with the required fee.

This brief is being filed along with the required $500 fee pursuant to 37 C.F.R. § 41.20(b)(2) which should be deducted from Deposit Account No. 12-0913.

(i) Real Party in Interest

This application is assigned to Nortel Networks Limited who is the real party in interest.

(ii) Related Appeals and Interferences

There are no related appeals or interferences.

(iii) Status of Claims

This application was filed with claims 1 to 25. In the responses during prosecution before the Examiner, claims 1, 5, 6, 10, 11, 13 to 15, 18, 19, 22 and 23 were amended and claims 8, 12, 16, 20 and 24 cancelled. During amendment, the independent claims have each been amended to recite features patentably distinguishing the invention over the prior art of record. No claims have been allowed. Claims 1 to 7, 9 to 11, 13 to 15, 17 to 19, 21 to 23 & 25 are those claims rejected and being appealed, and are set forth in the Claims Appendix.

(iv) Status of Amendments

No claim amendments have been made following the final Office Action. A response was filed May 15, 2006 to the final Office Action mailed March 13, 2006 and entered by the Examiner, so the claims now pending have all been considered by the Examiner and finally rejected. It is the rejection of these claims as set forth in the final Office Action mailed March 13, 2006 that is appealed.

(v) Summary of Claimed Subject Matter

In a first main aspect, the invention as presently claimed is concerned with a system for streaming data comprising a content providing server (page 7, line 32, figure 2) capable of storing content (page 8, lines 29 to 34) and communicating the content to at least a first and a second client terminator unit (page 8, lines 9 to 18) via a communications network (page 7, line 33) in response to requests for the content (page 11, lines 30 to 34. The system further comprises a distribution server (page 8, lines 5 to 7, figure 3) coupled in-line between the content providing server and the at least the first and second client terminator units (figure 1). The distribution server is arranged to generate at least a first and a second onward data stream and transmit the at least the first and second onward data streams to the at least the first and second client terminator units, respectively, (page 8, lines 9 to 18) in response to control data received from the content providing server and in response to an incoming data stream received or being received from the content providing server (page 10, line 2), the incoming data stream corresponding to the content, wherein the at least the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data (page 10, line 12 to page 11, line 2).

In another main aspect, the invention as claimed concerns a multicast server (figure 3) for streaming data. The multicast server comprises a processor unit coupled to a storage device and a router, the processor unit being arranged to receive control data from a content providing server (figure 2) and to receive an incoming data stream corresponding to content from the content providing server in response to requests for the content. The processor unit is arranged to store at least part of the incoming data stream in the storage device and is further arranged to generate at least a first and a second onward data streams for transmission to at least a first and a second client terminator units, respectively, in response to the control data received from the content providing server and in response to the incoming data

stream received or being received from the content providing server. The at least the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data (page 9, lines 5 to 30).

The invention also concerns a method of streaming data between a content providing server and at least a first and a second client terminator unit. The method comprises receiving at a distribution server control data sent from the content providing server; receiving at the distribution server at least part of an incoming data stream corresponding to content from the content providing server in response to requests for the content; and in response to receiving the control data and the at least part of an incoming data stream, generating at least a first and a second onward data stream. The method further comprises transmitting the first and second onward data streams to the first and second client terminator units, respectively; wherein the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data.

The invention also concerns computer executable software code stored on a computer readable medium and a programmed computer, the code being arranged to implement the method of the invention on the programmed computer.

In the present invention it is only necessary to transmit one data stream comprising "original" content from a content service provider to a distribution server in a system where a client termination unit (subscriber unit) can be controlled by its respective subscriber to receive/display a conveniently timed staggered one of a plurality (at least first and second) of onward data streams from the distribution server, said onward data streams corresponding substantially to the original content from the content service provider and being transmitted from the distribution server offset in time. This is achieved by sending control data from the content service provider to

the distribution server containing an offset value that enables the distribution server to stagger in time the transmissions of the plurality of onward data streams generated in said server from the (single) original content received from the content service provider. Thus, it is an essential feature of the present invention that the offset value utilized by the distribution server to control the time stagger of the plurality of onward data streams is provided by the content service provider. In contrast to known systems where the plurality of time staggered onward data streams are transmitted from the content service provider to the distribution or multi-cast server, the present invention greatly reduces the bandwidth required on the communications link between the content server provider to the distribution server which is highly desirable. The system of the present invention is also more versatile than existing systems in that the timing offset can be quickly modified by sending from the content serving provider to the distribution server a single new value for the timing offset.

(vi) Grounds of Rejection To Be Reviewed on Appeal

There are six rejections at issue:

1. the rejection of claims 1, 3, 10, 14, 18 & 22 under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6201536 to Hendricks et al in view of US Patent Number 6464381 to Hodge et al;

2. the rejection of claims 2, 11, 15, 19 & 23 under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6201536 to Hendricks et al in view of US Patent Number 6464381 to Hodge et al and further in view of US Patent Number 5701582 to Debey;

3. the rejection of claims 4, 13, 17, 21 & 25 under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6201536 to Hendricks et al in view of US Patent Number 6464381 to Hodge et al and further in view of US Patent Number 5724646 to Ganek;

4. the rejection of claims 5 and 6 under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6201536 to Hendricks et al in view of US Patent Number 6464381 to Hodge et al and further in view of US Patent Number 6304578 to Fluss;

5. the rejection of claim 9 under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6201536 to Hendricks et al in view of US Patent Number 6464381 to Hodge et al and further in view of US Patent Number 6304578 to Fluss and yet further in view of US Patent Number 5724646 to Ganek; and

6. the rejection of claim 7 under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6201536 to Hendricks et al in view of US Patent Number 6304578 to Fluss and further in view of US Patent Number 5701582 to Debey.

(vii) Argument

Ground 1:

The Examiner argues that the operations center, 202, of Hendricks equates to the content providing server 102 of the present invention. In general, a server can be considered as comprising a computer that handles requests for data, email, file transfers, and other services from other computers (i.e., clients). See web definition located at www.usg.edu/galileo/skills/ollc_glossary.html for a powerful computer that holds data to be shared over a (communication) network which can be used to store critical data for retrieval. It also acts as the communications gateway between many computers connected to it, responding to requests for information from client computers. See web definition located at www.botics.com/marketing/seo_glossary.htm . Consequently, it is clear that the operations center 202 taught by Hendricks is not a server in the commonly understood sense and to construe it as such is to interpret the term in the broadest possible manner rather than in a manner that would be reasonably understood by one of ordinary skill in the art.

Even if one supposes that the operation center and head end of Hendricks correspond to the content providing server and distribution server, respectively, of the present invention it is a specific feature of each of the claims that the distribution server generates first and second onward data streams in response to control data received from the content providing server and which data streams are offset in time with respect to each other by a respective offset value indicated in the control data.

The Examiner has stated in the Advisory Action mailed June 5, 2006 with respect to what is disclosed in Hendricks that "the program control information signal transmitted from the operations center includes the schedule information for the programming, such as start times" and that "Hendricks specifically discloses wherein

the programming schedule, including start times, is created by the operations center 202" and further states that "program start times are decided by the operations center". The Examiner also states in the Advisory Action that "it is abundantly clear that the staggered start times of the various programs are assigned and determined prior to/independent of any actual user requests for the video".

The Examiner confirms by way of these comments the Applicant's understanding that Hendricks does not disclose an offset value. An offset value is a numerical quantity for a timing offset which, in the present invention, is applied at the distribution server to the incoming data stream to create the plurality of onward data streams. In the present invention, the distribution server is arranged "*to generate at least a first and second onward data stream…….. wherein the at least the first and second data onward data streams ……..are offset in time with respect to each other by a respective offset value indicated in the control data*". It is clear that the distribution server applies the offset value to the incoming data stream received or being received at the distribution server in order to generate said at least first and second onward streams offset in time by the offset time amount (value) indicated in the control data.

In contrast with the present invention and as confirmed by the Examiner, Hendricks teaches an operations center providing a programming schedule comprising starting times for the various programs. Thus, each program will have its own start time determined by the operations center which is unaffected by any process performed by the distribution server. It will also be apparent that there could be a multitude of different implicit timing offsets existing between the respective starting times of the various programs scheduled by the operations center, but there is no mechanism for the distribution server to effect any change to such offsets. Hendricks does not disclose sending an offset <u>value</u> from the operations center to the headend in the manner claimed in the present invention. In Hendricks, there is no need to send an

offset value since all programming scheduling including implicit timing offsets between scheduled programs are controlled and assigned by the operations center.

Accordingly, it is absolutely clear that the control data sent from operations center 202 to head end 208 does not indicate an offset value for staggering onward streams of data generated by the distribution server.

In the case of Hendricks where the timing offsets implicit in the programming schedule are subject to some change, it would be necessary for the operations center to provide the head end with a new programming schedule to effect any such changed timing offsets. In contrast, in the present invention, it is only necessary to send a single new offset value in the control data from the content providing server to the distribution server for an originating data stream to be regenerated by the distribution server as a plurality of onward streams offset with respective to a preceding stream by the new timing offset value.

Therefore, the combination of Hendricks and Hodge clearly does not does not disclose all of the limitations of the independent claims as currently pending. .

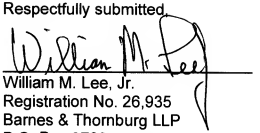
Grounds 2 to 6:

These grounds are moot in view of the foregoing.

Reversal of the Examiner is therefore clearly in order and is solicited.

July 28, 2006

Respectfully submitted,



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Claims Appendix

1. A system for streaming data comprising a content providing server capable of storing content and communicating the content to at least a first and a second client terminator unit via a communications network in response to requests for the content, and a distribution server coupled in-line between the content providing server and the at least the first and second client terminator units, wherein the distribution server is arranged to generate at least a first and a second onward data stream and transmit the at least the first and second onward data streams to the at least the first and second client terminator units, respectively, in response to control data received from the content providing server and in response to an incoming data stream received or being received from the content providing server, the incoming data stream corresponding to the content, wherein the at least the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data.

2. A system as claimed in Claim 1, wherein the first and/or the second onward data streams are generated prior to receipt of all of the incoming data stream.

3. A system as claimed in Claim 1, wherein the offset value is provided by the content providing server.

4. A system as claimed in Claim 1, wherein the distribution server is arranged to loop the first onward data stream at least once.

5. A multicast server for streaming data, comprising a processor unit coupled to a storage device and a router, the processor unit being arranged to receive control data from a content providing server and to receive an incoming data stream corresponding to content from the content providing server in response to requests for the content, and being arranged to store at least part of the incoming data stream

in the storage device, wherein the processor unit is further arranged to generate at least a first and a second onward data streams for transmission to at least a first and a second client terminator units, respectively, in response to the control data received from the content providing server and in response to the incoming data stream received or being received from the content providing server, wherein the at least the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data.

6. A multicast server as claimed in Claim 5, wherein the router is arranged to transmit the at least the first and the second onward data streams to the at least the first and the second client terminator units, respectively.

7. A multicast server as claimed in Claim 5, wherein the first and/or the second onward data streams are generated prior to receipt of all of the incoming data stream.

9. A multicast server as claimed in Claim 5, wherein the processor unit is arranged to loop the first onward data stream at least once.

10. A method of streaming data between a content providing server and at least a first and a second client terminator unit, the method comprising the steps of:

receiving at a distribution server control data sent from the content providing server;

receiving at the distribution server at least part of an incoming data stream corresponding to content from the content providing server in response to requests for the content;

in response to receiving the control data and the at least part of an incoming data stream, generating at least a first and a second onward data stream, and

transmitting the first and second onward data streams to the first and second client terminator units, respectively;

wherein the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data.

12 A method as claimed in Claim 10, further comprising generating the at least first and/or the second onward data streams prior to receipt of all of the incoming data stream.

13 A method as claimed in Claim 10, further comprising the step of looping the first onward data stream at least once.

14 Computer executable software code stored on a computer readable medium, the code being for streaming data between a content providing server and at least a first and a second client terminator unit, the code comprising:

code to receive control data sent from the content providing server;

code to receive at least part of an incoming data stream corresponding to content from the content providing server in response to requests for the content,

code to generate, in response to receiving the control data and the at least part of the incoming data stream, at least a first and a second onward data stream;

code to transmit the first and second onward data streams to the first and second client terminator units, respectively,

wherein the at least the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data.

15 Computer executable software code as claimed in Claim 14, further comprising

code to generate the first and/or the second onward data streams prior to receipt of all of the incoming data stream.

17. Computer executable software code as claimed in Claim 14, further comprising:

code to loop the first onward data stream at least once.

18. A programmed computer for streaming data between a content providing server and at least a first and a second client termination units, comprising memory having at least one region for storing computer executable program code, and

a processor for executing the program code stored in memory, wherein the program code includes:

code to receive control data sent from the content providing server;

code to receive at least part of an incoming data stream corresponding to content from the content providing server in response to requests for the content;

code to generate, in response to receiving the control data and the at least part of the incoming data stream, at least a first and a second onward data stream[[s]];

code to transmit the first and second onward data streams to the first and second client terminator units, respectively,

wherein the at least the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data.

19. A programmed computer as claimed in Claim 18, wherein the program code further comprises:

code to generate the first and/or the second onward data streams prior to receipt of all of the incoming data stream.

21. A programmed computer as claimed in Claim 18, wherein the program code further comprises:

code to loop the first onward data stream at least once.

22. A computer readable medium having computer executable software code stored thereon, the code being for streaming data between a content providing server and at least a first and a second client terminator unit and comprising:

code to receive control data sent from the content providing server;

code to receive at least part of an incoming data stream corresponding to content from the content providing server in response to requests for the content;

code to generate, in response to receiving the control data and the at least part of the incoming data stream, at least a first and a second onward data stream[[s]];

code to transmit the first and second onward data streams to the first and second client terminator units, respectively;

wherein the at least the first and second onward data streams correspond substantially to the content and are offset in time with respect to each other by a respective offset value indicated in the control data.

23. A computer readable medium as claimed in Claim 22, further comprising:

code to generate the first and/or the second onward data streams prior to receipt of all of the incoming data stream.

25. A computer readable medium as claimed in Claim 22, further comprising:

code to loop the first onward data stream at least once.

Evidence Appendix and Related Proceedings Appendix

There are no such appendices.